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OM nucleic - nucleic search, using sw model

Run on: November 25, 2003, 06:21:51 ; Search time 10 Seconds

(without alignments)
3.865 Million cell updates/sec

Title: us-09-965-825-1

Perfect score: 2160

Sequence: 1 ttagagggcgatctctgtgag.....ggtgcccatgagattgcccc 2160

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 0.5

Searched: 12 segs, 8947 residues

Total number of hits satisfying chosen parameters: 24

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : US09965825.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the local score distribution.

SUMMARIES					Description
Result No.	Score	Query Match	Length	ID	
1	2160	100.0	2160	1	US-09-965-825-1
2	2160	100.0	3248	1	US-09-965-825-4
3	875	40.5	875	1	US-09-965-825-3
4	324.4	15.0	1422	1	US-09-965-825-12
5	46.8	2.2	2160	1	US-09-965-825-12
6	46.8	2.2	2160	1	US-09-965-825-1
7	46.8	2.2	3248	1	US-09-965-825-4
8	26	1.2	26	1	US-09-965-825-10
9	25.2	1.2	48	1	US-09-965-825-9
10	20.4	0.9	875	1	US-09-965-825-3
11	20	0.9	20	1	US-09-965-825-13
12	20	0.9	20	1	US-09-965-825-14
13	18.4	0.9	613	1	US-09-965-825-7
14	15.8	0.7	475	1	US-09-965-825-6
15	15.4	0.7	613	1	US-09-965-825-7
16	15.4	0.7	475	1	US-09-965-825-6
17	12.2	0.6	20	1	US-09-965-825-11
18	12.2	0.6	20	1	US-09-965-825-14
19	12	0.6	48	1	US-09-965-825-9
20	11	0.5	20	1	US-09-965-825-8
21	9.4	0.4	20	1	US-09-965-825-8
22	8.8	0.4	20	1	US-09-965-825-11
23	8.8	0.4	20	1	US-09-965-825-13
24	8.6	0.4	26	1	US-09-965-825-10

ALIGNMENTS

RESULT 1
US-09-965-825-1
; Sequence 1, Application US/09965825
; GENERAL INFORMATION:

; APPLICANT: DUSCH, Nicole									
; APPLICANT: THOMAS, Hermann									
; APPLICANT: THIERBACH, Georg									
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID									
; TITLE OF INVENTION: CORYNEFORM BACTERIA									
; FILE REFERENCE: 21354USOX									
; CURRENT APPLICATION NUMBER: US/09/965,825									
; CURRENT FILING DATE: 2001-10-01									
; PRIOR APPLICATION NUMBER: DE 10048604.5									
; PRIOR FILING DATE: 2000-09-30									
; PRIOR APPLICATION NUMBER: DE 10117085.8									
; PRIOR FILING DATE: 2001-04-06									
; NUMBER OF SEQ ID NOS: 14									
; SOFTWARE: PatentIn version 3.1									
; SEQ ID NO 1									
; LENGTH: 2160									
; TYPE: DNA									
; ORGANISM: Corynebacterium glutamicum									
; FEATURE:									
; NAME/KEY: CDS									
; LOCATION: (327)..(2063)									
; OTHER INFORMATION:									
; NAME/KEY: -35 signal									
; LOCATION: (227)..(232)									
; OTHER INFORMATION:									
; NAME/KEY: -10 signal									
; LOCATION: (256)..(261)									
; OTHER INFORMATION:									
US-09-965-825-1									
Query Match									
Best Local Similarity 100.0%; Score 2160; DB 1; Length 2160;									
Matches 2160; Conservative 0; Mismatches 0; Indels 0; Gaps 0;									
QY	1	TTAGAGGCGATCTGTGAGGTGACCTTTTGTGGGCTCGGGTCTTAATTGGCAGTTT	60						
DB	1	TTAGAGGCGATCTGTGAGGTGACCTTTTGTGGGCTCGGGTCTTAATTGGCAGTTT	60						
QY	61	CGAGGCGACAGACAGCGCTGCGACAGATGTTTAAATAGCATCGTGGGATCTGTG	120						
DB	61	CGAGGCGACAGACAGCGCTGCGACAGATGTTTAAATAGCATCGTGGGATCTGTG	120						
QY	121	TTGGTTTCAGCGGCTGAAACCAACCAAGCTGCCAGACGACGGAATCCCAAAAGT	180						
DB	121	TTGGTTTCAGCGGCTGAAACCAACCAAGCTGCCAGACGACGGAATCCCAAAAGT	180						
QY	181	GGGCAATCCCTGTTGGTACCGAGTACCAACCGGGCTGAACTCCCTGGCAGCGGGCG	240						
DB	181	GGGCAATCCCTGTTGGTACCGAGTACCAACCGGGCTGAACTCCCTGGCAGCGGGCG	240						
QY	241	AAGCGTGACAACTGGAATTTAAGAGCACAATTGAAGTCGACCAAGTTAGCAACAC	300						
DB	241	AAGCGTGACAACTGGAATTTAAGAGCACAATTGAAGTCGACCAAGTTAGCAACAC	300						
QY	301	AATAGCATAAGTTGAGAGATTCAGATGGCACACAGCTACCGCAACAATTAATTGACA	360						
DB	301	AATAGCATAAGTTGAGAGATTCAGATGGCACACAGCTACCGCAACAATTAATTGACA	360						
QY	361	CTTTGGAACCTAAGGTGTGAAGCGAATTTAGTTGGTGTGACAGCTTTAATCCGA	420						
DB	361	CTTTGGAACCTAAGGTGTGAAGCGAATTTAGTTGGTGTGACAGCTTTAATCCGA	420						
QY	421	TCGTGATGCTGTCCGCCAATCAGATATGATGGGTGACAGTTGCAATTAATGAGGCG	480						
DB	421	TCGTGATGCTGTCCGCCAATCAGATATGATGGGTGACAGTTGCAATTAATGAGGCG	480						
QY	481	CGGCGTTTGACCGCGGTGCGGATGTTGATCTAGGGAGCTGCGAGTATGCTGCTT	540						
DB	481	CGGCGTTTGACCGCGGTGCGGATGTTGATCTAGGGAGCTGCGAGTATGCTGCTT	540						
QY	541	CTTGATGCTGGAACACACACCTGATTACGGGTCTTAATGATTCGACCAATGAGGCG	600						
DB	541	CTTGATGCTGGAACACACACCTGATTACGGGTCTTAATGATTCGACCAATGAGGCG	600						

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QY 601 CGAAGTGTGGCCATCGTAGCCATATTCGATGCCCCAGATTGGTTCGACGTTCTTCC 660
Db 601 CGAAGTGTGGCCATCGTAGCCATATTCGATGCCCCAGATTGGTTCGACGTTCTTCC 660
QY 661 AGGAAACGCATCCGGAGATTTTGTAAAGAACTCTCTGTTACTCGGAGATGTGAATG 720
Db 661 AGGAAACGCATCCGGAGATTTTGTAAAGAACTCTCTGTTACTCGGAGATGTGAATG 720
QY 721 GTGGTGGCAAGGGGAAAGCAATTTTGCATACCGGATTCACATCCAGCCGGTAAAG 780
Db 721 GTGGTGGCAAGGGGAAAGCAATTTTGCATACCGGATTCACATCCAGCCGGTAAAG 780
QY 781 GTGTGTGGTGTAGTATTCCTGTGTATATCGCTAAGAAAGCAGAGTACCGTACTT 840
Db 781 GTGTGTGGTGTAGTATTCCTGTGTATATCGCTAAGAAAGCAGAGTACCGTACTT 840
QY 841 ATTCCAAATTCACATATTTCTTGTGGCACTCTGTGTGTTCGCGAATCTACTAGAGCTG 900
Db 841 ATTCCAAATTCACATATTTCTTGTGGCACTCTGTGTGTTCGCGAATCTACTAGAGCTG 900
QY 901 CAGCGCTGGTGGAGCGCATTTAACAAGCTAAGCTGATCACTTGTTCGCGGTGCGGGCG 960
Db 901 CAGCGCTGGTGGAGCGCATTTAACAAGCTAAGCTGATCACTTGTTCGCGGTGCGGGCG 960
QY 961 TGAAGAAATGCTCGCGCGCAAGGTGTGAGATTGCGGAGAAATTAATCAACCATCGGCG 1020
Db 961 TGAAGAAATGCTCGCGCGCAAGGTGTGAGATTGCGGAGAAATTAATCAACCATCGGCG 1020
QY 1021 ATGGGCTGGTGTGTAAGCAGTACATCCAGCATGAGAAATCCGTTTGAGGTGCGGCAATGCTG 1080
Db 1021 ATGGGCTGGTGTGTAAGCAGTACATCCAGCATGAGAAATCCGTTTGAGGTGCGGCAATGCTG 1080
QY 1081 GCCGTGTTGGTTACGGGCGCCGCTGGATGCGTCCAAATGAGGCGGATCTGCTATCTAT 1140
Db 1081 GCCGTGTTGGTTACGGGCGCCGCTGGATGCGTCCAAATGAGGCGGATCTGCTATCTAT 1140
QY 1141 TGGGTACGGAATTCCTTATTTCTGATTTCTTCTTAAAGAACAGGTTGCCAGGTGATA 1200
Db 1141 TGGGTACGGAATTCCTTATTTCTGATTTCTTCTTAAAGAACAGGTTGCCAGGTGATA 1200
QY 1201 TCAACGCTGGCCACATTTGTGAGTACCAAGGTGAAAGTATCCGTTGACCGGTATGTTG 1260
Db 1201 TCAACGCTGGCCACATTTGTGAGTACCAAGGTGAAAGTATCCGTTGACCGGTATGTTG 1260
QY 1261 CTGCAACAATCGAAATATTTTGGCTCATGTGAAGAAAAACGATCGTTCTTCTTGG 1320
Db 1261 CTGCAACAATCGAAATATTTTGGCTCATGTGAAGAAAAACGATCGTTCTTCTTGG 1320
QY 1321 ATCGGATGCTTAAGGCAACAGAGCTAAGTTAGCTCGTGTGAGAGACGTACACATA 1380
Db 1321 ATCGGATGCTTAAGGCAACAGAGCTAAGTTAGCTCGTGTGAGAGACGTACACATA 1380
QY 1381 ACGTCGAGAGCATGTGCTTATTCACCTGTAATACGTTGCTCTATTTTGAACAGAGCTG 1440
Db 1381 ACGTCGAGAGCATGTGCTTATTCACCTGTAATACGTTGCTCTATTTTGAACAGAGCTG 1440
QY 1441 CGGATTAAGGATCGCGTGTTAATCTGTGATACCGGCAATGTGCAATGTGTGATCGAGGT 1500
Db 1441 CGGATTAAGGATCGCGTGTTAATCTGTGATACCGGCAATGTGCAATGTGTGATCGAGGT 1500
QY 1501 ACATCGAGATCCGGAGGAAACGCGCACTTTGTGGGTTCACTTCGCGCACGCGACGATGG 1560
Db 1501 ACATCGAGATCCGGAGGAAACGCGCACTTTGTGGGTTCACTTCGCGCACGCGACGATGG 1560
QY 1561 CTAAATGCGTGGCCATCGCATTTGTGCGCAAGGTGTGATCGAAACGCGCAGGTGATCG 1620
Db 1561 CTAAATGCGTGGCCATCGCATTTGTGCGCAAGGTGTGATCGAAACGCGCAGGTGATCG 1620
QY 1621 CGATGTGTGCGATGTGTGTGTGCGCATGTCTGTGAGTACGTTCTGACCGTTTAAGCTGC 1680
Db 1621 CGATGTGTGCGATGTGTGTGTGCGCATGTCTGTGAGTACGTTCTGACCGTTTAAGCTGC 1680

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QY 1681 ACCAATCTTCGCTGAAAGCTGTGTGTTTAAACAACAGTTCTTTGGGACATGTGAAGTTGG 1740
Db 1681 ACCAATCTTCGCTGAAAGCTGTGTGTTTAAACAACAGTTCTTTGGGACATGTGAAGTTGG 1740
QY 1741 AGATGCTGTGAGAGGACACGCAAGATTTGTGTACTACCATGAGAAAGTAAATTTCCAG 1800
Db 1741 AGATGCTGTGAGAGGACACGCAAGATTTGTGTACTACCATGAGAAAGTAAATTTCCAG 1800
QY 1801 AGATGCGGCGGCTGCGGGGTATCAATCGGTAGCATCACCGATCCGAGAAAGTTGCGG 1860
Db 1801 AGATGCGGCGGCTGCGGGGTATCAATCGGTAGCATCACCGATCCGAGAAAGTTGCGG 1860
QY 1861 AGCAGTAGCTGAGGCAATTTGCAATATCTGACCTGTACTGATGATATCTGTCACGATC 1920
Db 1861 AGCAGTAGCTGAGGCAATTTGCAATATCTGACCTGTACTGATGATATCTGTCACGATC 1920
QY 1921 CTAAATGCGTGTGATCTCCACCAACATCACGTGTGAAACAGGTATGAGGATTCACAGAG 1980
Db 1921 CTAAATGCGTGTGATCTCCACCAACATCACGTGTGAAACAGGTATGAGGATTCACAGAG 1980
QY 1981 CCGCCACCCGACCGTCTTTGTGTGAGAGATGAGGAGCATGATGATCTGCGCCGTTGCA 2040
Db 1981 CCGCCACCCGACCGTCTTTGTGTGAGAGATGAGGAGCATGATGATCTGCGCCGTTGCA 2040
QY 2041 ACATPAAGAAATATTTCTTACTCATGATGATGATGATACCTGTCTCATTTGACCGCGA 2100
Db 2041 ACATPAAGAAATATTTCTTACTCATGATGATGATGATGATACCTGTCTCATTTGACCGCGA 2100
QY 2101 GCGCTTACTGCTCCCAACATTTTCCAGAGATGAGCAGCTCAGCGGGTCCCATGAGATTCGCTT 2160
Db 2101 GCGCTTACTGCTCCCAACATTTTCCAGAGATGAGCAGCTCAGCGGGTCCCATGAGATTCGCTT 2160

RESULT 2
US-09-965-825-4
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSCH, Georg
; TITLE OF INVENTION: CORNEFORM BACTERIA
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965, 825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4

Query Match 100.0%; Score 2160; DB 1; Length 3248;
Best Local Similarity 100.0%; Pred. No. 3,4e-219;
Matches 2160; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 121 TTGGTTTGGAGGGCTGAAACCAACGAGACTGCCACGACGAGGAATCCGAAAAGT 180
Db 596 TTGGTTTGGAGGGCTGAAACCAACGAGACTGCCACGAGGAATCCGAAAAGT 655
QY 181 GGGAGTCCCTGTTTGGTACCGAGTACCACCCGGGCTGAAATCCCTGGAGGGGGCG 240
Db 656 GGGAGTCCCTGTTTGGTACCGAGTACCACCCGGGCTGAAATCCCTGGAGGGGGCG 715
QY 241 AAGCGTGGCAACAATGGAAATTTAAGACACAAATTTGAATGGCAATTAAGCAAC 300
Db 716 AAGCGTGGCAACAATGGAAATTTAAGACACAAATTTGAATGGCAATTAAGCAAC 775
QY 301 AATAGCCATAACGTTGAGAGATTGAGATGGCACACAGTACGAGAAATTAATTGCA 360
Db 776 AATAGCCATAACGTTGAGAGATTGAGATGGCACACAGTACGAGAAATTAATTGCA 835
QY 361 CTTTGAAGAGCTCAAGAGTGAAGCAATTTATGTTTGGTGGTGAACGCTTATCCGA 420
Db 836 CTTTGAAGAGCTCAAGAGTGAAGCAATTTATGTTTGGTGGTGAACGCTTATCCGA 895
QY 421 TCGTGATGCTGTCCGCCAATCAGATATTGAGTGGTGCACGTTGAAATGAGGAAGCG 480
Db 896 TCGTGATGCTGTCCGCCAATCAGATATTGAGTGGTGCACGTTGAAATGAGGAAGCG 955
QY 481 CGGGGTTTGACGGGGGCGGGAATCGTTGATCACTGGGAGCTGGCAGTATGTGCTT 540
Db 956 CGGGGTTTGACGGGGGCGGGAATCGTTGATCACTGGGAGCTGGCAGTATGTGCTT 1015
QY 541 CTTTGGTCTCTGAAACACACACCTGATTCAGGGCTTTTATGATTCGATCGAAATGGTG 600
Db 1016 CTTTGGTCTCTGAAACACACACCTGATTCAGGGCTTTTATGATTCGATCGAAATGGTG 1075
QY 601 CGAAGGTGTGGCCATGCTAGCCATATTCGAGTGGCCAGATTTGTCAGTCTTCC 660
Db 1076 CGAAGGTGTGGCCATGCTAGCCATATTCGAGTGGCCAGATTTGTCAGTCTTCC 1135
QY 661 AGGAACCGCATCCCGAGATTTTGTTAAGAAATGCTGTGTTACTGCGAAGTGGTAATG 720
Db 1136 AGGAACCGCATCCCGAGATTTTGTTAAGAAATGCTGTGTTACTGCGAAGTGGTAATG 1195
QY 721 GTGTGAGACAGGGTGAACGCAATTTTGCATCAGCGATTCAGTCCACATGGCGGTAAAG 780
Db 1196 GTGTGAGACAGGGTGAACGCAATTTTGCATCAGCGATTCAGTCCACATGGCGGTAAAG 1255
QY 781 GTGTGTGGTGTGATGATTTCTGTGATATTCGCTAAGAAAGCAGGTGACGTAATT 840
Db 1256 GTGTGTGGTGTGATGATTTCTGTGATATTCGCTAAGAAAGCAGGTGACGTAATT 1315
QY 841 ATTCCAAATTCACATATTTCTTCTGCACTCCGTGTGTGTTCCCGATCTTAAGGCTG 900
Db 1316 ATTCCAAATTCACATATTTCTTCTGCACTCCGTGTGTGTTCCCGATCTTAAGGCTG 1375
QY 901 CAGGCTGTGTGAGGCGATTAACAAGCTAAGTCTGTCACTTGTTCGCGGTGCGGCG 960
Db 1376 CAGGCTGTGTGAGGCGATTAACAAGCTAAGTCTGTCACTTGTTCGCGGTGCGGCG 1435
QY 961 TGAAGAAATGCTCGCGCGAGGTGTGAGTGGCGAGAAATTAATCAACCGATCGGCG 1020
Db 1436 TGAAGAAATGCTCGCGCGAGGTGTGAGTGGCGAGAAATTAATCAACCGATCGGCG 1495
QY 1021 ATGGCGTGGGTGTGAGAGATCAATCCAGCATGAGAAATCCGTTGAGGTGGGCAATGTG 1080
Db 1496 ATGGCGTGGGTGTGAGAGATCAATCCAGCATGAGAAATCCGTTGAGGTGGGCAATGTG 1555
QY 1081 GCCTGTGTGTACGCGGCTGCGTGTGATGCTCAATGAGAGCGGATGCTGATTTCTAT 1140
Db 1556 GCCTGTGTGTGTACGCGGCTGCGTGTGATGCTCAATGAGAGCGGATGCTGATTTCTAT 1615
QY 1141 TGGGTAGGATTTCCCTTATTTCTGATTTCTTCTTAAGACACAGTTGCCAGGTGATA 1200
Db 1616 TGGGTAGGATTTCCCTTATTTCTGATTTCTTCTTAAGACACAGTTGCCAGGTGATA 1675
QY 1201 TCAAGGTGGGCAATTTGTGAGGTACACGAGTGAAGTATCCGGTGACCGGTATGTG 1260

Db 1676 TCAAGGTGGGCAATTTGTGAGGTACACGAGTGAAGTATCCGTTGACCGGTATGTG 1735
QY 1261 CTGCAACATGGAATAATTTTGTCTCATGGAAGAAAAACAGATGTTCTTCTTG 1320
Db 1736 CTGCAACATGGAATAATTTTGTCTCATGGAAGAAAAACAGATGTTCTTCTTG 1795
QY 1321 ATCGGATGCTCAAGGCAACGAGGCTAAGTTGAGCTCGGTGTGAGACGTACACATA 1380
Db 1796 ATCGGATGCTCAAGGCAACGAGGCTAAGTTGAGCTCGGTGTGAGACGTACACATA 1855
QY 1381 ACGTCGAAGACATGCTCTTTCACCTGAAATACGTTGCTCTTATTTTGAACGAGCTG 1440
Db 1856 ACGTCGAAGACATGCTCTTTCACCTGAAATACGTTGCTCTTATTTTGAACGAGCTG 1915
QY 1441 CGGATTAAGGATGCGGTGTTTACTGTGATAACGGCATGTGCATGTGACAGGT 1500
Db 1916 CGGATTAAGGATGCGGTGTTTACTGTGATAACGGCATGTGCATGTGACAGGT 1975
QY 1501 ACATCGAATCCGAGAGGAAACGCGCATTTGTGGGTTTCAATCCGCCACGCGACGATG 1560
Db 1976 ACATCGAATCCGAGAGGAAACGCGCATTTGTGGGTTTCAATCCGCCACGCGACGATG 2035
QY 1561 CTAATGGGCTTCCATGCGATTTGGTGGCAAAAGTTGATCGAAACCGCCACGATGTC 1620
Db 2036 CTAATGGGCTTCCATGCGATTTGGTGGCAAAAGTTGATCGAAACCGCCACGATGTC 2095
QY 1621 CGATGTGTGCGATGTGTTTGGCAATGCTGTGAGTGTGAGCTTCTGACCGTTAAGCTG 1680
Db 2096 CGATGTGTGCGATGTGTTTGGCAATGCTGTGAGTGTGAGCTTCTGACCGTTAAGCTG 2155
QY 1681 ACCAATTCGCGTGAAGGCTGTGTGTTTAAACAAGTTCTTTTGGGCAATGTGAAGTTG 1740
Db 2156 ACCAATTCGCGTGAAGGCTGTGTGTTTAAACAAGTTCTTTTGGGCAATGTGAAGTTG 2215
QY 1741 AGATGCTGTGAGAGGACAGCCAGATTTGTAATGTAACGACAGAGAAATTTCCGAG 1800
Db 2216 AGATGCTGTGAGAGGACAGCCAGATTTGTAATGTAACGACAGAGAAATTTCCGAG 2275
QY 1801 AGATTTGGCGGCGCTGCGGGTATCAAAATGCTAGCGATCAGCATCCGAAAGAAATTCG 1860
Db 2276 AGATTTGGCGGCGCTGCGGGTATCAAAATGCTAGCGATCAGCATCCGAAAGAAATTCG 2335
QY 1861 AGCAGCTAGCTGAGGCAATTTGCAATTCCTGSAACCTGTATCTGATGATATGTCACGATC 1920
Db 2336 AGCAGCTAGCTGAGGCAATTTGCAATTCCTGSAACCTGTATCTGATGATATGTCACGATC 2395
QY 1921 CTAATGGGCTGTGATCCCAACCAACATCAGTGGGAAACAGTGTGAGATTCAACAG 1980
Db 2396 CTAATGGGCTGTGATCCCAACCAACATCAGTGGGAAACAGTGTGAGATTCAACAG 2455
QY 1981 CGGCCACCCGAAACCGTCTTTTGTGAGAGTGAAGCGATGATGATCTGGCCGTTGCA 2040
Db 2456 CGGCCACCCGAAACCGTCTTTTGTGAGAGTGAAGCGATGATGATCTGGCCGTTGCA 2515
QY 2041 ACATTAAGAAATTTCTTATCTCATGATGATTAACATCTGCTTCTCATTTGACCGCA 2100
Db 2516 ACATTAAGAAATTTCTTATCTCATGATGATTAACATCTGCTTCTCATTTGACCGCA 2575
QY 2101 GCGCTTAATGCGCAAAATTTCCAGATGGGAGCTCAACCGGCTGCGCATGAGATTGCCCT 2160
Db 2576 GCGCTTAATGCGCAAAATTTCCAGATGGGAGCTCAACCGGCTGCGCATGAGATTGCCCT 2635

RESULT 3
US-09-965-825-3
; Sequence 3, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; TITLE OF INVENTION: CORINFORM BACTERIA


```

; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 12
; LENGTH: 1422
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-12
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Query Match      2.2%; Score 46.8; DB 1; Length 1422;
Best Local Similarity 60.0%; Pred. No. 0.0037;
Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
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QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGGGCATCTGTGTGGTTT 127
DB 594 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCGGACAGTCTGTGGTTT 535
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGGAATCCCAAAAGTGGCATC 187
DB 534 CAGCCCGTCGAAACCAACCAACGAGATGCCACCGATGCTTAATTTAAACATCGTGGGACG 475
QY 188 CCGTGTGGT 197
DB 474 CCGTGTGGT 465
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RESULT 6

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US-09-965-825-1/c
; Sequence 1, Application US/09965825
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; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 1
; LENGTH: 2160
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (327)..(2063)
; OTHER INFORMATION:
; NAME/KEY: -35 signal
; LOCATION: (227)..(232)
; OTHER INFORMATION:
; NAME/KEY: -10 signal
; LOCATION: (256)..(261)
; OTHER INFORMATION:
US-09-965-825-1
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Query Match      2.2%; Score 46.8; DB 1; Length 2160;
Best Local Similarity 60.0%; Pred. No. 0.0027;
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Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
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QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGGGCATCTGTGTGGTTT 127
DB 197 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCGGACAGTCTGTGGTTT 138
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGGAATCCCAAAAGTGGCATC 187
DB 137 CAGCCCGTCGAAACCAACCAACGAGATGCCACCGATGCTTAATTTAAACATCGTGGGACG 78
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QY 188 CCGTGTGGT 197
DB 77 CCGTGTGGT 68
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RESULT 7

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US-09-965-825-4/c
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4
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Query Match      2.2%; Score 46.8; DB 1; Length 3248;
Best Local Similarity 60.0%; Pred. No. 0.002;
Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
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QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGGGCATCTGTGTGGTTT 127
DB 672 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCGGACAGTCTGTGGTTT 613
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGGAATCCCAAAAGTGGCATC 187
DB 612 CAGCCCGTCGAAACCAACCAACGAGATGCCACCGATGCTTAATTTAAACATCGTGGGACG 553
QY 188 CCGTGTGGT 197
DB 552 CCGTGTGGT 543
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RESULT 8

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US-09-965-825-10
; Sequence 10, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 10
; LENGTH: 26
; TYPE: DNA
; ORGANISM: Artificial Sequence
```

FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-10

Query Match 1.2%; Score 26; DB 1; Length 26;
Best Local Similarity 100.0%; Pred. No. 10;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2064 TGATGATGATACACCTGCTGTTCTC 2089

Db 1 TGATGATTGATACACTGCTGTTCTC 26

RESULT 9
US-09-965-825-9/c

Sequence 9, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 9
LENGTH: 48
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-9

Query Match 1.2%; Score 25.2; DB 1; Length 48;
Best Local Similarity 90.0%; Pred. No. 7.8;
Matches 27; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 2060 TCATGATGATGATACACTGCTGTTCTC 2089

Db 30 TCAGTGATGATGATACCTGCTGTTCTC 1

RESULT 10
US-09-965-825-3/c

Sequence 3, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 3
LENGTH: 875
TYPE: DNA
ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

Query Match 0.9%; Score 20.4; DB 1; Length 875;

Best Local Similarity 61.1%; Pred. No. 2.4;
Matches 33; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

QY 290 TTAGGCAACACATAGCCATTAGCTTGAGAGTTGAGTGCACACAGCTACGC 343

Db 872 TGAGGCAACGATTAAGCCATGTCGCCGCGGAGTGAACCCACAAAGTCCGC 819

RESULT 11
US-09-965-825-13

Sequence 13, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 13
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-13

Query Match 0.9%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 50;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 705 TGGGAGATGGTGAATGGTGG 724

Db 1 TGGGAGATGGTGAATGGTGG 20

RESULT 12
US-09-965-825-14/c

Sequence 14, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 14
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-14

Query Match 0.9%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 50;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1560 GCTATGGCTTGCCTCATGC 1579
|||
Db 20 GCTAATGGCTTGCCTCATGC 1

RESULT 13

US-09-965-825-7
; Sequence 7, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSCH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 613
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-7

Query Match 0.9%; Score 18.4; DB 1; Length 613;
Best Local Similarity 63.6%; Pred. No. 4.7;

Matches 28; Conservative 0; Mismatches 16; Indels 0; Gaps 0;

QY 2115 ACATTCCAGATGGCAGCTCAGCCCGGTGCCCATGAGATTGCC 2158
|||
Db 33 AAATTGGCAGATGCGAGTGCAGCCCGGTGCCCATGAGATTGCC 76

RESULT 14

US-09-965-825-6
; Sequence 6, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSCH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 475
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-6

Query Match 0.7%; Score 15.8; DB 1; Length 475;
Best Local Similarity 60.5%; Pred. No. 9.5;

Matches 26; Conservative 0; Mismatches 17; Indels 0; Gaps 0;

QY 1733 GAAGTTGAGATGCTGTCGAGGAGACGACGAAATTTGTTACT 1775
|||
Db 424 GAGCTCGAAGATGTCGAGGAGACTGTCTCAGCGTGGGTGGTTCT 466

RESULT 15
US-09-965-825-7/c

; Sequence 7, Application US/09965825

; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSCH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 613
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-7

Query Match 0.7%; Score 15.6; DB 1; Length 613;
Best Local Similarity 63.2%; Pred. No. 7.9;

Matches 24; Conservative 0; Mismatches 14; Indels 0; Gaps 0;

QY 662 GGAACGCAATCCGAGATTGTTTAAAGATGCTCTG 699
|||
Db 202 GGAATTTCTCCGGGAGTCGGCTTCAGGCGTTGCACCTG 165

Search completed: November 25, 2003, 06:22:02
Job time : 11 secs

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OM protein - nucleic search, using frame_plus_p2n model

Run on: November 25, 2003, 06:26:38 / Search time 4 Seconds

(without alignments)
2.590 Million cell updates/sec

Title: us-09-965-825-2
Perfect score: 2985
Sequence: 1 MAHVAEQLDITAEAGVKK.....GGVGMIDLARSNIRNIPPT 579

Scoring table:

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Ygapop 10.0	Ygapext 0.5		
Fgapop 6.0	Fgapext 7.0		
Delop 6.0	Delext 7.0		

Searched: 12 seqs, 8947 residues

Total number of hits satisfying chosen parameters: 24

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Command line parameters:
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-SUFFIX=pro -OUT=align2_nuc -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits
-START=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALLIGN=200
-THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pro
-NORM=ext -HEADSIZE=500 -MTLEN=0 -MAXLEN=200000000 -NCPU=6 -NO_XIPPX
-NEG_SCORES=0 -LONGLOG -THREAS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOF=6 -FGAPEXT=7
-YGAPOF=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : US09965825.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2985	100.0	2160	1	US-09-965-825-1
2	2985	100.0	3248	1	US-09-965-825-4
3	1518	50.9	875	1	US-09-965-825-3
4	48.5	1.6	1422	1	US-09-965-825-12
5	46	1.5	3248	1	US-09-965-825-4
6	45.5	1.5	613	1	US-09-965-825-7
7	45	1.5	2160	1	US-09-965-825-1
8	40.5	1.4	875	1	US-09-965-825-3
9	40	1.3	1422	1	US-09-965-825-12
10	39	1.3	613	1	US-09-965-825-7
11	37	1.2	475	1	US-09-965-825-6
12	35	1.2	20	1	US-09-965-825-13
13	33	1.1	20	1	US-09-965-825-14
14	32	1.1	475	1	US-09-965-825-6
15	24	0.8	48	1	US-09-965-825-9
16	21	0.7	20	1	US-09-965-825-8
17	20	0.7	48	1	US-09-965-825-9
18	20	0.7	20	1	US-09-965-825-11
19	20	0.7	26	1	US-09-965-825-10
20	18	0.6	20	1	US-09-965-825-13
21	17	0.6	26	1	US-09-965-825-10

C	22	16	0.5	20	1	US-09-965-825-8	Sequence 8, App1
C	23	15	0.5	20	1	US-09-965-825-14	Sequence 14, App1
C	24	14	0.5	20	1	US-09-965-825-11	Sequence 11, App1

ALIGNMENTS

RESULT 1			
US-09-965-825-1			
; Sequence 1, Application US/09965825			
; GENERAL INFORMATION:			
; APPLICANT: DUSCH, Nicole			
; APPLICANT: THOMAS, Hermann			
; APPLICANT: THIERBACH, Georg			
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID			
; FILE REFERENCE: 21354USOX			
; CURRENT APPLICATION NUMBER: US/09/965,825			
; CURRENT FILING DATE: 2001-10-01			
; PRIOR APPLICATION NUMBER: DE 10048604.5			
; PRIOR FILING DATE: 2000-09-30			
; PRIOR APPLICATION NUMBER: DE 10117085.8			
; PRIOR FILING DATE: 2001-04-06			
; NUMBER OF SEQ ID NOS: 14			
; SOFTWARE: PatentIn version 3.1			
; SEQ ID NO 1			
; LENGTH: 2160			
; TYPE: DNA			
; ORGANISM: Corynebacterium glutamicum			
; FEATURE:			
; NAME/KEY: CDS			
; LOCATION: (327)..(2063)			
; OTHER INFORMATION:			
; NAME/KEY: -35 signal			
; LOCATION: (227)..(232)			
; OTHER INFORMATION:			
; NAME/KEY: -10 signal			
; LOCATION: (256)..(261)			
; OTHER INFORMATION:			
US-09-965-825-1			
Alignment Scores:			
Pred. No.:	0	Length:	2160
Score:	2985.00	Matches:	579
Percent Similarity:	100.00%	Conservative:	0
Best Local Similarity:	100.00%	Mismatches:	0
Query Match:	100.00%	Indels:	0
DB:	1	Gaps:	0
us-09-965-825-2 (1-579) x US-09-965-825-1 (1-2160)			
QY	1	MetaIaHISseRTyZaIaGluGlnLeuIleAspThrLeuGluAaGlnGlyValIysArg	20
DB	327	ATGGCAACAGCTACCGACAGACATTAATGACACTTTGGAACTCAAGGTGAAAGCGA	386
QY	21	IleTyGlyLeuValGlyAspSerLeuAsnProIleValAspAlaValArgGlnSerAsp	40
DB	387	ATTATGTTGGTGGTGACAGCCTTAATCCAGTCGTGGATGCTGCCCAATCAGAT	446
QY	41	IleGluTrpValHisValArgAsnGluGluAlaAlaPheAlaIleGluSer	60
DB	447	ATTGATGGGTGCACCTTGAATGAGGAGCGCGCTTGCCACCGGTGGGAAATCG	506
QY	61	LeuIleThrGlyGluLeuAlaValCysAlaIleSerCysGlyProGlyAsnThrHis	80
DB	507	TTCATCCTCGGGAGCTGCAGTATGCTGCTTCTTGCTGCTGGAAACACACACTG	566
QY	81	IleGlnGlyLeuTrpAspSerHisArgAsnGlyAlaIleValLeuAlaIleAspHis	100
DB	567	ATTGAGGCTCTTATGATTCGCATCGAATGGTGCAGAGGTGTGGCCATCCGTAGCCAT	626
QY	101	IleProSerAlaGlnIleGlySerThrPhePheGlnGluThrHisProGluIleLeuPhe	120


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Db      627 ATTCCGAGTCCCGCAGATTGTTTCGACGTTCTTCCAGGAAACGCAATCCGAGATTGTTT 686
Qy      121 LysGluCysserGIYTYrCySGluMetValAsnGIYGIYugInGIYluArGIleu 140
Db      687 AAGGAATCTCTGTGTACTGTGAGATGTGTGAATGTGTGTGAGCAGGGGAAACGCAATTTG 746
Qy      141 HisHisAlaIleGInSerThrMetAlaGIYSGIYValSerValValIleProGIY 160
Db      747 CATACCGGATTCATGATCCACCATGCGGGTAAAGGTGTGTGTGTGTGTGTGTGTGTGTGT 806
Qy      161 AspIleAlaIYSGIYAspAlaGIYAspGIYThrTYrSerAsnSerThrIleSerSerGIY 180
Db      807 GATATCGGTAAAGAAAGCAGGTGACCGTACTTATTCCAATTCACATTTCTTCGTGGC 866
Qy      181 ThrProValIlePheProAspProThrGIYAlaIleAlaIleValIleValIleAsnAsn 200
Db      867 ACTCTGTGTGTCTCCGAGTCTCTACTAGAGCTGACAGCGCTGTGTGTGTGTGTGTGTGTGT 926
Qy      201 AlaIYSerValIleThrLeuPheCysGIYAlaGIYValIYsAsnAlaArgAlaGIYValIleu 220
Db      927 GCTAAGTCTGTCACTTGTGTCTGTGGCGGTGCGGGCGTGAAGAAATGCTCCGCGCAGGTGTG 986
Qy      221 GluLeuAlaGIYGIYGIYGIYGIYSerProIleGIYHisAlaIleuGIYGIYGIYGIYIle 240
Db      987 GAGTTGGCGGAGAAAGATTAAATCACCGATCGGCAATGCGGTGTGTGTGTGTGTGTGTGTGT 1046
Qy      241 GlnHisGluAsnProPheGIYValaGIYMetSerGIYLeuLeuGIYTYrGIYAlaCysVal 260
Db      1047 CAGCATGAGAAATCCGTTTGAGGTGCGGCAATGTCTGGCCCTGTGTGTGTGTGTGTGTGTGT 1106
Qy      261 AspaIaSerAsnGluAlaAspLeuLeuIleLeuLeuGIYThrAspPheProTYrSerAsp 280
Db      1107 GATCGGTCCATGAGCGGATCTGTGTGTATTCATGTGGTGTGTGTGTGTGTGTGTGTGTGTAT 1166
Qy      281 PheLeuProIYsAspAsnValAlaGIYValaAspIleAsnGIYAlaHisIleGIYArgArg 300
Db      1167 TTCTCTCTTAAAGAACAGTGTGCCAGGTGATTAACAAGGTGTGTGTGTGTGTGTGTGTGTGT 1226
Qy      301 ThrThrValIYTYrProValIleThrGIYAspValAlaIleThrIleGIYAsnIleLeuPro 320
Db      1227 ACCACGCGTGAAGTATCCGTCGATCCGTCATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1286
Qy      321 HisValIYSGIYGIYTYrAspArgSerPheLeuAspArgMetLeuIYsAlaHisGIYArg 340
Db      1287 CATGTGAAGGAAAAACAGATCTGTCTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1346
Qy      341 LysLeuSerSerValIleValIleThrTYrThrHisAsnValaGIYGIYHisValaProIleHis 360
Db      1347 AAGTTGAGCTCGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1406
Qy      361 ProGIYTYrValAlaSerIleLeuAsnGIYLeuAlaAspIYsAspAlaValaPheThrVal 380
Db      1407 COTGAATACGTTGCTCTATTTTGAACGAGTCGCGGATTAAGAGATCGCGTGTGTGTGTGTGT 1466
Qy      381 AspThrGIYMetCysAsnValIlePheHisAlaArgTYrIleGluAsnProGIYGIYThrArg 400
Db      1467 GATACCGGCAATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1526
Qy      401 AspPheValaGIYSerPheArgHisGIYThrMetAlaAsnAlaLeuProHisAlaIleGIY 420
Db      1527 GACTTGTGGGTCTCTCTCCGACGACGAGGTGTAAATGCGTTGCTTCATGCGATGTGTGT 1586
Qy      421 AlaGInSerValaAspArgAsnArgGlnValIleAlaMetCysGIYAspGIYGIYLeuGIY 440
Db      1587 GCGCAAGATGTGTGATCGAAACCGGCAAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1646
Qy      441 MetLeuLeuGIYGIYLeuLeuThrValIYsLeuHisGlnLeuProLeuIYsAlaValaVal 460
Db      1647 ATGCGCTGGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1706
Qy      461 PheAsnAsnSerSerLeuGIYMetValIYsLeuGIYMetLeuValaGIYGIYGIYProGIY 480
Db      1707 TTTAACAACATTTCTTTGGGATGTGTGAAGTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1766

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Qy      481 PheGIYThrAspHisGIYGIYValaIleAsnPheAlaGIYIleAlaAlaAlaGIYIleYs 500
Db      1767 TTGTGTACTGACCATGACGAAGTGAATTTCCAGAGATTTGGCGGCTGCGGGTATCAAA 1826
Qy      501 SerValaArgIleThrAspProIYsValaArgGIYGIYGIYGIYGIYGIYGIYGIYGIY 520
Db      1827 TCGGTACGATCACCGATCCGAGAAAGTTGCGAGCAGGTGTGTGTGTGTGTGTGTGTGTGTGT 1886
Qy      521 ProGIYProValaIleuIleAspIleValIleThrAspProAsnAlaLeuSerIleProProthr 540
Db      1887 CCGGACCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1946
Qy      541 IleThrTPGIYGIYValaIleMetGIYPheSerIYsAlaIleThrArgThrValaPheGIYGIY 560
Db      1947 ATCAGTGTGGAACAGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2006
Qy      561 GIYValaGIYAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThrPro 579
Db      2007 GGAAGTAGGAGGATGATGATCTGCGCGTTCGAACATTAAGAAATATTCCTACTCCA 2063

RESULT 2
US-09-965-825-4
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965, 825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4

Alignment Scores:
Pred. No.: 0 Length: 3248
Score: 2985.00 Matches: 579
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
Gaps: 0

us-09-965-825-2 (1-579) x US-09-965-825-4 (1-3248)
Qy      1 MetAlaHisSerTYrAlaGIYGIYLeuIleAspThrLeuGIYAlaGIYValIYsArg 20
Db      802 ATGGCACACACCTACGCGAACAATTATTAACACTTTGGAAGCTCAAGAGTGTGAAGCGA 861
Qy      21 IleTYrGIYLeuValaGIYAspSerLeuAsnProIleValaAspAlaValaArgInserAsp 40
Db      862 ATTATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 921
Qy      41 IleTYrValaIleHisValaArgAsnGIYGIYAlaIleAlaIleAlaIleAlaGIYAlaIleSer 60
Db      922 ATTGAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 981
Qy      61 LeuIleThrGIYGIYLeuAlaValaCysAlaAlaSerCysGIYGIYProGIYAsnThrHisLeu 80

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Db      982 TTGATCACTGGGAGCTGGCAGTATGTCGCTTCTTGTGCTCTGGAAACACACACTG 1041
QY      81  |||leGlnGlyLeuTYrAspSerHisArgAsnGlyAlaLysValLeuAlaIleAlaSerHis 100
Db      1042 ATTCAGGCTCTTATGATTCGATCGAAATGTCGGAAGGTGTTGGCCATCGCTAGCCAT 1101
QY      101  |||leProSerAlaGlnIleGlySerThrPhePheGlnGluThriHisProGluIleLeuPhe 120
Db      1102 ATTCACAGTGCACAGATGGGTTCGATGCTTCTCCAGAAACGCATCCGGAGATTGTTT 1161
QY      121  |||LysGluCysSerGlyTYrCysGluMetValAsnGlyGlyGluGlnGlyValGlyIleLeu 140
Db      1162 AAGGAATGCTCTGCTGTTACTCGAGATGCTAATGTCGTGACGAGGGTGAACCATTTTG 1221
QY      141  |||HisHisAlaIleGlnSerThrMetAlaGlyLysGlyValSerValValIleProGly 160
Db      1222 CATCAGCGCATTCAGTCCACCATGGCGGTAAGGGTGTGCGGTGGATGATTCCTGCT 1281
QY      161  |||AspIleAlaLysGluAspAlaGlyAspGlyThrTYrSerAsnSerThrIleSerSerGly 180
Db      1282 GATATGCTAAAGGAACGACGAGGTGACGGTACTTATTCCAATTCCTATTTCTCTGGC 1341
QY      181  |||ThrProValValPheProAspProThrGluAlaAlaAlaLeuValGluAlaIleAsnAsn 200
Db      1342 ACTCCTGTGGTGTCCCGGATCCTACTGAGCTGCAAGCGCTGTGGAGGCGATTACAC 1401
QY      201  |||AlaLysSerValThrLeuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeu 220
Db      1402 GCTAAAGTCTGCTACTTTGTTCTCGGGTGCGGCGGTGAAGATCTCGCGCGCAGGGTGG 1461
QY      221  |||GluLeuAlaGluLysIleLysSerProIleGlyHisAlaLeuGlyGlyLysGlnTYrIle 240
Db      1462 GAGTTGGCGAGAGATTAATACCGATCGGCGATCGCTGGGTGGTAAAGCATTCATC 1521
QY      241  |||GlnHisGluAsnProPheGluValGlyMetSerGlyLeuLeuGlyTYrGlyAlaCysVal 260
Db      1522 CAGCATGAGATCCGTTGAGTCCGCACTCTGCGCTGTTGGTTACGGCGCTGCGTG 1581
QY      261  |||AspAlaSerAsnGluAlaAspLeuLeuIleLeuGlyThraSpPheProTYrSerAsp 280
Db      1582 GATGCTCCCAATGAGCGGATCTGCTGATCTCTTCTTCATGGATTCGATTTCCCTTATTCGAT 1641
QY      281  |||PheLeuProLysAspAsnValAlaGlnValAspIleAsnGlyAlaHisIleGlyValArg 300
Db      1642 TTCCTTCTTAAACACACGTTGCCACGGTGGATTAACCGTTCGCAATTCGTCACCGT 1701
QY      301  |||ThrThrValLysTYrProValThrGlyAspValAlaAlaThrIleGluLeuIleLeuPro 320
Db      1702 ACCACGCTGAAGTATCGGTGACCGGTGATGTTGCTGCACACATCCAAATATTTGCGCT 1761
QY      321  |||HisValLysGluLysThrAspArgSerPheLeuAspArgMetLeuLysAlaHisGlyValArg 340
Db      1762 CATGTGAAGGAAAAACAGATCGTCTCTTCCTTCATCGCATCGCTCAAGGACACAGAGCGT 1821
QY      341  |||LysLeuSerSerValValGluThrTYrThrHisAsnValGluLysHisValProIleHis 360
Db      1822 AAGTTAGCTCGGTGTAAGACGTACACACATTAACGATCGAGAGATGCTTATTCAC 1881
QY      361  |||ProGluTYrValAlaSerIleLeuAsnGluLeuAlaAspLysAspAlaValPheThrVal 380
Db      1882 CCGAATATGCTGCTCTATTGTTGAACGAGCTGCGGATAGGATGCGGTATTACTGTG 1941
QY      381  |||AspThrGlyMetCysAsnValTTPHISAlaArgTYrIleGluAsnProGluGlyThrArg 400
Db      1942 GATACCGGATGCGCATGTGTGGCATGCGAGGTACATCGAGAAATCCGGAGGAAACGCCG 2001
QY      401  |||AspPheValGlySerPheArgHisGlyTYrThrMetAlaAsnAlaLeuProHisAlaIleGly 420
Db      2002 GACTTTGTGGTTCATTCGCCACCGCACGATGGCTTAATGCTTGGCTCATGCGATTGGT 2061
QY      421  |||AlaGlnSerValAspArgAsnArgGlnValIleAlaMetCysGlyAspGlyGlyLeuGly 440
Db      2062 GCGCAAGTGTGATGAAACCGCCAGGTGATCGCATGTGTGGTGGTGGG 2121

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QY      441  |||MetLeuLeuGlyGluLeuLeuThrValLysLeuHisGlnLeuProLeuLysAlaValVal 460
Db      2122 ATGCTGTGGGTAGCTTTCGACCGTTAAGCTCACCAATTCCTCGGTGAAGGCTGTGCTG 2181
QY      461  |||PheAsnAsnSerSerLeuGlyMetValLysLeuGluMetLeuValGluGlyGlnProGlu 480
Db      2182 TTTAACAACAGTTCCTTGGGCATGTCGAAAGTTGAGATGCTCTGGAGGACAGCCGAA 2241
QY      481  |||PheGlyThraSpHisGluGluValAsnPheAlaGluIleAlaAlaAlaIleGlyIleLys 500
Db      2242 TTGGTACTGACCATGATGAGATGAAATTCCTGACAGATTCGGGGCTGGCGGATATCAA 2301
QY      501  |||SerValArgIleThrAspProLysLysValArgGluGlnLeuAlaGluAlaLeuAlaTYr 520
Db      2302 TCGGTACGATCACCGATCCGAAAGAAAGTTCCGAGACAGTACTGAGGCATTCGCATAT 2361
QY      521  |||ProGlyProValLeuIleAspIleValIleThrAspProAsnAlaLeuSerIleProThr 540
Db      2362 CCTGGACCTGTACTGATGATATGATGTCACCGATCTTAATCGCTGTGATCCACCAAC 2421
QY      541  |||IleThrTTPGluGlnValMetGlyPheSerLysAlaAlaThrArgThrValPheGlyGly 560
Db      2422 ATCAGTGGAAACAGATCATGGATTACGCAAGCGCGCCACCGAACCAGTCTTGATGA 2481
QY      561  |||GlyValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThrPro 579
Db      2482 GGAGTGAAGCATGATTCATCTGCGCCGTTGCAACATTAAGATATTCCTACTCCA 2538

RESULT 3
US-09-965-825-3
; Sequence 3, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965, 825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 875
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

Alignment Scores:
Pred. No.: 6,21e-235 Length: 875
Score: 1518.00 Matches: 291
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 50.85% Indels: 0
DB: 1 Gaps: 0

us-09-965-825-2 (1-579) x US-09-965-825-3 (1-875)
QY      127  CysGluMetValAsnGlyGlyGluGlnGlyGluArgIleLeuHisHisAlaIleGlnSer 146
Db      1  |||TGGAGATGCTGATGCTGTGTGAGCAGGCTGAACGATTTTGCATCACGCGATTCACTCC 60
QY      147  |||ThrMetAlaGlyLysGlyLysValSerValValIleProGlyAspIleAlaLysGlyAsp 166
Db      61  |||ACCATGGCGGTAAGAGTGTGTCGGTGTAGTGATTCCTGTGATATCCCTAAGAAAGAC 120
QY      167  |||AlaGlyAspGlyThrTYrSerAsnSerThrIleSerSerGlyThrProValValPhePro 186

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Db      121 GCAGGTACGGTACTTAATTCACATTTCTTCTGCGACTCCTGNGGTTCGCCG 180
Qy      187 ASPProThrgluAlaAlaAlaLeuValGluAlaIleasnAlaIysSerValThrlu 206
Db      181 GATCTACTAGAGGTGCGAGCGCTGTGGAGCGATTACACGCTAGTGTGCTGCTTGG 240
Qy      207 PheCysglYalagIyValIysAsnAlaArgAlaGlnValIleuGluLeuAlaGluIysIle 226
Db      241 TTCTGCGGTGCGCGGTGAAGAAATGCTCGCGCAGGGTGTGGAGTTGGCGGAAGAAATT 300
Qy      227 LysSerProIleGlyHISAlaLeuGlyGlyIysGlnIlyrIleGlnHISGluAsnProPhe 246
Db      301 AAATCACCAGATCGGGCAATGCGCTGGTGGTAAAGATCAACGACATGAAGAAATCCGTTT 360
Qy      247 GluValGlyMetSerGlyLeuLeuGlyIYrIglYalAcysValAspAlaSerAsnGluAla 266
Db      361 GAGGTGCGCATGTGTGGCTGCTGTGTTACGGCGCTGCGTGGATGGCTCAATGAGAGCG 420
Qy      267 AspLeuLeuIleLeuLeuGlyThrAspPheProTySerAspPheLeuProIysAspAsn 286
Db      421 GATCTGCTGATTTCTATTGGGTACGGAATTTCCCTTATTCTGATTTCTTCTTAAAGACAC 480
Qy      287 ValAlaGlnValAspIleAsnGlyAlaAlaHISrIleGlyArgThrThrValIysTyPro 306
Db      481 GTTCCCAAGGTGGATATCAACGCTGCGCACATTGCTGACGCTACACGCTGAAGTATCCG 540
Qy      307 ValThrgIyAspValAlaAlaThrIleGluAsnIleLeuProHISValIysGluIysThr 326
Db      541 GTGACCGGTGATGTGCTGCAACAATCGAAATATTGCTCTCATGTGTAAGAAAGAAAAACA 600
Qy      327 AspArgSerPheLeuAspArgMetLeuIysAlaHISGluAlaGlyIleuSerSerValAla 346
Db      601 GATGCTCTCTTCTGATCGGATGCTCAAGGCACACGCGTAAGTGAAGTCTCGATGGTA 660
Qy      347 GluThrTyThrThrHISAsnValGluIysHISValProIleHISProGluTyValAlaSer 366
Db      661 GAGACGTACACACTTAACGTGACAGACATGTGCTTATTCACCTGATACGCTTGCTCT 720
Qy      367 IleLeuAsnGluLeuAlaAspIysAspAlaValPheThrValAspThrgIyMetCysAsn 386
Db      721 ATTTGAACGAGCTGGCGGATMAAGATGCGGTGTTACTGTGGATACCGGATGTGCAT 780
Qy      387 ValThrgIyAlaAlaGlyrIleGluAsnProGluGlyThrArgAspPheValGlySerPhe 406
Db      781 GTGGGATGCGAGGTATCATCGAATCCGAGGAGAAACGCGACTTTGTGGTTCATTTC 840
Qy      407 ArgHISGlyThrMetAlaAsnAlaLeuProHIS 417
Db      841 CGCCACGCGACGATGCTAATGCTTGCTCAT 873

RESULT 4
US-09-965-825-12
; Sequence 12, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 1422
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-12

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Alignment Scores:
Pred. No.: 1.83 Length: 1422
Score: 48.50 Matches: 22
Percent Similarity: 38.53% Conservative: 20
Best Local Similarity: 20.18% Mismatches: 48
Query Match: 1.62% Indels: 19
DB: 1 Gaps: 4

US-09-965-825-2 (1-579) x US-09-965-825-12 (1-1422)
Qy      424 ValAspArgAsnArg-----GlnValIleAlaMetCysGlyAspGlyIleuGly 440
Db      750 ATTGACCGCAGCGCCTTAACTGCCACATTTCCAGATGGACGCTCAACGCCGT----- 803
Qy      441 MetLeuLeuGlyGluLeuLeuThrValIysLeuHISGlnIleuProLeuValAlaValAla 460
Db      804 -----GCCATGAGATTGCCCTGCGCTCGCATGTG 833
Qy      461 PheAsnAsnSerSerLeuGlyMetValIysLeuGluMetLeuValIglYgInProGlu 480
Db      834 AAACGCACAAAATCATTTGAATTCGACATGCGACATGCGAGGTGACGCCGTCGCCGA----- 887
Qy      481 PheGlyThrAspHISGluGluValAsnPheAlaGluIleAlaAlaAlaGlyIleIys 500
Db      888 ---GGATCACTCGCGGACCATTTGCGAGCGGAAATTTTGGCGGCGAGTTTACG 944
Qy      501 SerValArgIleThrAspProIysIysValArgIleGluIleuAlaGluAlaLeu---Ala 519
Db      945 GACATCTTTATTGATATTCGCTGATCTATCAACGATCATGACATGACAGTCAACGCTGAACCG 1004
Qy      520 TyrProGlyProValLeuIleAspIle 528
Db      1005 ATCCCGAGAAATTTCCATTGGCGTG 1031

RESULT 5
US-09-965-825-4/c
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSBACH, Georg
; TITLE OF INVENTION: CORNEFORM BACTERIA
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4

Alignment Scores:
Pred. No.: 16.7 Length: 3248
Score: 46.00 Matches: 111
Percent Similarity: 29.28% Conservative: 67
Best Local Similarity: 18.26% Mismatches: 219
Query Match: 1.54% Indels: 212
DB: 1 Gaps: 27

US-09-965-825-2 (1-579) x US-09-965-825-4 (1-3248)

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QY	23	GLYLeuValGLYAspSerLeuAsnProIleValAspAlaValArgGlnSerPileu	42
Db	2720	GGTTGGCAGGGATCCCTCGGACACCGGCGTGCAC-----	2685
QY	43	TrpValHisValArgAsn---GluGluAlaIleAlaPheAlaIleGlyAlaGlnSerLeu	61
Db	2684	---CTGCATCTGGCAATTTCATATGATTTTGGCGCTTTCACATCGGACGAG-----	2634
QY	62	IleThrGlyLeuLeuAlaValCysAlaAlaSerCysGlyProGlyAsnThrHisLeuIle	81
Db	2633	-----GGCAATCTCATGGGACACCGCGTGACCTGCATCTCGAAATCTT-----	2589
QY	82	GlnGlyLeuThrAspSerHisArgAsnGlyAlaLysValLeuAlaIleAlaSerHisIle	101
Db	2588	-----GGCAGTTAAGCGCTGCGCGTC-----	2568
QY	102	ProSerAlaGlnIleGlySerThrPhePheGlnGluThrHisProGluIleLeuPheLys	121
Db	2568	-----	2568
QY	122	GluCysSerGlyTyrCysGluMetValAsnGlyGlyGlnGlnGlyLeuHis	141
Db	2567	-----AATGAAACAGCAGAGTGATCATATCAT-----	2541
QY	142	HisAlaIleGlnSerThrMetAlaGlyLysGlyValSerValValIleProGlyAsp	161
Db	2540	CAT-----GGAGTAGGAATAATTCCTTATG-----	2517
QY	162	IleAlaLysGluAspAlaGlyAspGlyThrTyrSerAsnSerThrIleSerSerGlyThr	181
Db	2516	-----TTGAAACGGGCCGACA	2502
QY	182	ProValValPheProAspProThrGluAlaAlaAlaLeuValGluAlaIleAsnAsnAla	201
Db	2501	TCGATCATCGCCCTCACTCCTCCACCAAGACGGTGGGCGCGCTTGCTGAATCC	2442
QY	202	LysSerValThrLeuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeuGlu	221
Db	2441	ATGACCTGTTCCACGTGATGGTTGATGGGATCGACACGCAATTGATGATCCGTG-----	2388
QY	222	LeuAlaGluLysIleLysSerProIleGlyHisAlaLeuGlyGlyLysGlnTyrIleGln	241
Db	2387	---ACGATATCGATCATGACAGGTCCAGAGATATGCAATGCTCAGCTAGTGC-----	2337
QY	242	HisGluAsnProPhe-----GluValAlaGlyMetSerGlyLeuLeuGlyTyrGlyAlaCys	259
Db	2336	---TCGCGAATCTTTTTCGAGATCGGTGATGCGTACCGATTTGATACCCGCGACCGCGCA	2280
QY	260	ValAspAlaSerAsnGluAlaAspLeuLeuIleLeuLeuGlyThrAspPheProTyrSer	279
Db	2279	ATCTCTGGGAAA-----TTCACTTCTCTCA	2256
QY	280	AspPheLeuProLysAspAsnValAlaGlnValAspIleAsnGlyAlaHisIleLysArg	299
Db	2255	TGGTCAATGACAAATTTGGCTGTGCTCCCTCCACAGCATCTCCAACTT-CACCATGCCCA	2197
QY	300	ArgThrThrValLysTyr-----ProValThrGlyAsp---	310
Db	2196	AGAACTGTGTTTAAACACACACAGCCTTCAGGGAAAGTTGTCGACGCTTAACAGCTCAGAG	2137
QY	311	-----ValAlaAlaThrIleGluAsnIleLeuProHisValLysGluLys	325
Db	2136	CTCACCCAGCAGCATGCCCAACCCACATCCGCCACACATCGCATACCTCGCGGTTTCG	2077
QY	326	ThrAspArgSerPheLeuAspArgMetLeuLysAlaHisGluAlaGlyLysSerSerVal	345
Db	2076	ATCAACACTTTGGCGACCAATCGCATG-----AGGCAACGCATTATGGCATCGTGC	2026
QY	346	ValGluThrTyrThrHisAsnValAlaGluLys-----	355
Db	2025	GTGGCGGAATGAACCCCAAGTGGCGGCTTCCCTCCGGAATTCGATGATACCTCGCATG	1966
QY	356	-----HisValProIleHisProGluTyrValAlaSerIleLeuAsnGluLeu	371

Db 1965 CCACACATTGCACATCCCGGTATCCACAGTAACACCGCATCTTATCCGCCAGCTCGTT 1906
Qy 372 AlaAspLysAspAlaValPheThrValAspThrGlyMet-----Cys 385
Db 1905 CAAAAATGAGGGCAACGATTTACAGGTGAATAGGACATGCTTCTCGACGTTATGTGTGA 1846
Qy 386 AsnValTyrHisAlaArgTyr-----IleGluAsnPro-----GluGly 398
Db 1845 CGCTTACACCGGAGCTCACTTACGCTGTGTGCTTGGAGCATCCGATTAAGGAAAGCA 1786
Qy 399 ThrArgAspPheValGlySerPheArgHisGlyThrMet-----AlaAsnAlaLeu 415
Db 1785 ACGATCTGTTTTTTCCTTCATCATGAGGCAAAAATATTTCGATTGTGGAGCAACTAC 1726
Qy 416 ProHisAlaIle-----GlyAlaGlnSerValAsp----- 425
Db 1725 GGTCAACCGATATCTTACCGGTGTAGCTGACCAACATGTGGACCGTTGATATCCACCTG 1666
Qy 426 -----ArgAsnArgGlnVal 430
Db 1665 GGCAACGTTGCTTTTGGAAAGAAATCAGATATAGGAAATCCGTACCCATAGATATAG 1606
Qy 431 ---IleAlaMetCysGlyAspGlyLeuGly----- 440
Db 1605 CAGATCCGCTCATTTGAGCAGCATCCAGCAGGCGCGGTATACCAAGCAGGCCAGCATGCC 1546
Qy 441 -----MetLeuLeuGlyGluLeuLeuThrValLysLeuHisGlnLeu-Pr 455
Db 1545 GACCTCAACGAGATTCCTATGCTGATGTACTGCTTAACTCCACCAGC-----CGCATGCC 1492
Qy 455 GluLysAlaValAlaPheAsnAsnSerSerLeuGlyMetValLysLeuGluMetLeuVal 475
Db 1491 GATCGGTGATTTATATCTTCCGCCCACTCAACACCTGCCGCGA-----GCATTCTT 1438
Qy 475 IeGluGlyGlnProGluPheGlyThrAspHisGluGlnValAsnPheAlaGluIleAlaI 495
Db 1437 CACGCCCGCAGCGCAGAACAAAGTGACAGACTTAGCGTTTAAATGCCCTCCACACAGCG 1378
Qy 495 AlaAlaGlyIleLysSerValArgIleThrAspProLysValArgGluGlnLeuAl 515
Db 1377 TCCAGGCTCAGTAGAGATCCGGAGACACACACAGAG-----GTGCCAGAGAAATAGT 1327
Qy 515 aglualaleuAlaTyrProGlyProvalLeuIleAspIleValThrAspProAsnAlaIe 535
Db 1326 GGAATTGGATTAAGTACCCTCACTCGC-----TCTTCTT 1291
Qy 535 uSerIleProProThrIleThr 542
Db 1290 AGCGATATCACCAGGATCACT 1269

RESULT 6
US-09-965-825-7
Sequence 7, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIRBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
FILE REFERENCE: 21354USOX
CURRENT APPLICATION NUMBER: US/09/965, 825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 7
LENGTH: 613
TYPE: DNA
ORGANISM: Corynebacterium glutamicum

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US-09-965-825-7
Alignment Scores:
Pred. No.: 0.786 Length: 613
Score: 45.50 Matches: 13
Percent Similarity: 48.72% Conservative: 6
Best Local Similarity: 33.33% Mismatches: 19
Query Match: 1.52% Indels: 1
DB: 1 Gaps: 1

us-09-965-825-2 (1-579) x US-09-965-825-7 (1-613)

QY 491 Alagluilealaalaalaglylleyssevalargilethrasprolylsval 510
DB 95 GCGGAAATTTTTCGCGCGAGGTTTACGACATCTTATTCATATCCGCTATCTA 154

QY 511 ArggluglualeuAglualaleu---AlaTyProgliprovallleuileaspile 528
DB 155 ACCGATCATGCGATCGCAACGCTGACGCGATCCCGGAGAAATTCCATTGGCGTG 211

RESULT 7
US-09-965-825-1/c
; Sequence 1, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 2160
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (327)..(2063)
; OTHER INFORMATION:
; NAME/KEY: -35_signal
; LOCATION: (227)..(232)
; OTHER INFORMATION:
; NAME/KEY: -10_signal
; LOCATION: (256)..(261)
; OTHER INFORMATION:
US-09-965-825-1

Alignment Scores:
Pred. No.: 12.3 Length: 2160
Score: 45.00 Matches: 22
Percent Similarity: 41.84% Conservative: 19
Best Local Similarity: 22.45% Mismatches: 42
Query Match: 1.51% Indels: 15
DB: 1 Gaps: 4

us-09-965-825-2 (1-579) x US-09-965-825-1 (1-2160)

QY 487 GluValasnphealagluilealaalaAlaGlylleyssevalargilethras 506
DB 1796 GAAATTCATCTTCATCGTACGATCAACAAATTCGGCTGCCCTCCACGAGCATCTCCAA 1737

QY 506 ProlylsysvalArggluglualeuAglualaleuAlaTyProgliprov---Valle 525
DB 1736 CTTACACATGCCCAAGAACTGTGTTAAACACACACACCTTCGCGGAGAGTTGGTGAG 1677

QY 525 uileaspilevalthrAspProAsnAlaLeuSerileProProthr-----11 541

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DB 1676 CTTACGGTCAAGAGCTCACCAGCATGCCCAACCATCCATGCCACATCCGAT 1617
QY 541 eThrTripgluInvalMetGlyPheSerlyAlaAlaGThrArgThrValPheGlyG1 561
DB 1616 CACCTGGGG-----TTTCGATCAACACTTTGGCAGCACCAATCCGATGAGGCA 1569

QY 561 yvalGyAlaWerileaspileuAlaArgSerAsnileArgAsnileProthr 578
DB 1568 CGCATATGCGCATCGTCCGCTG-----CGAATGAACCCACA 1532

RESULT 8
US-09-965-825-3/c
; Sequence 3, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 875
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

Alignment Scores:
Pred. No.: 8.88 Length: 875
Score: 40.50 Matches: 16
Percent Similarity: 44.23% Conservative: 7
Best Local Similarity: 30.77% Mismatches: 18
Query Match: 1.36% Indels: 11
DB: 1 Gaps: 2

us-09-965-825-2 (1-579) x US-09-965-825-3 (1-875)

QY 491 Alagluilealaalaalaglylleyssevalargilethrasprolylsval 510
DB 212 GCTCCACACCGCTGCGAGCTCAGTAGGATCCGGAACACACAGCA-----GTG 162

QY 511 ArggluglualeuAglualaleuAlaTyProgliprovallleuileaspilevalthr 530
DB 161 CCAGAGAAATGATGGAATTGGAAATGATACCGTCACTGCG----- 120

QY 531 AspProAsnAlaLeuSerileProProThrilethr 542
DB 119 -----TCTTCCTTAGCATATCAACAGAAATCACT 90

RESULT 9
US-09-965-825-12/c
; Sequence 12, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8

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; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-13
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Alignment Scores:
Pred. No.: 0.0123      Length: 20
Score: 35.00           Matches: 6
Percent Similarity: 100.00%  Conservaive: 0
Best Local Similarity: 100.00%  Mismatches: 0
Query Match: 1.17%      Indels: 0
DB: 1                  Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-13 (1-20)

```
QY      127  |||||
DB      1  TGCAGATGATGATGAT 18
```

```
RESULT 13
US-09-965-825-14/c
; Sequence 14, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 14
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-14
```

```
Alignment Scores:
Pred. No.: 0.0256      Length: 20
Score: 33.00           Matches: 6
Percent Similarity: 100.00%  Conservaive: 0
Best Local Similarity: 100.00%  Mismatches: 0
Query Match: 1.11%      Indels: 0
DB: 1                  Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-14 (1-20)

```
QY      412  AAlaAaAlaAlaAlaProHis 417
DB      20  GCTAATGCGTTCCTCAT 3
```

```
RESULT 14
US-09-965-825-6/c
; Sequence 6, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORINEFORM BACTERIA
```

```

; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 475
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-6
```

```
Alignment Scores:
Pred. No.: 19.9        Length: 475
Score: 32.00           Matches: 11
Percent Similarity: 51.85%  Conservaive: 3
Best Local Similarity: 40.74%  Mismatches: 9
Query Match: 1.07%      Indels: 4
DB: 1                  Gaps: 2
```

us-09-965-825-2 (1-579) x US-09-965-825-6 (1-475)

```
QY      234  LeuGlyGlyGlyGlnTyrIleGlnHisGluAsnProPheGluValGlyMetSer----- 251
DB      116  TTGGGTGACAAA-----ATCGGCCACCGCGGATGTTCTCTCATGGCTTGAGCATTTTC 63
```

```
QY      252  GlyLeuLeuGlyTyrGlyAla 258
DB      62  GGAATCGCTTCACTTGATGCT 42
```

```
RESULT 15
US-09-965-825-9/c
; Sequence 9, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
; LENGTH: 48
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-9
```

```
Alignment Scores:
Pred. No.: 4.76        Length: 48
Score: 24.00           Matches: 4
Percent Similarity: 100.00%  Conservaive: 1
Best Local Similarity: 80.00%  Mismatches: 0
Query Match: 0.80%      Indels: 0
DB: 1                  Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-9 (1-48)

```
QY      351  HisAsnValGlyLys 355
DB      46  CATAACGTTGAGAG 32
```

Search completed: November 25, 2003, 06:26:52
Job time : 13 secs

GenCore version 5.1.6
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OM nucleic - protein search, using frame_plus_nzp model

Run on: November 25, 2003, 06:28:39 ; Search time 1 Seconds

(without alignments)
5.003 Million cell updates/sec

Title: us-09-965-825-1

Perfect score: 3948

Sequence: 1 tttagggcgcatctctgtgag.....gttcccatgagatgcctt 2160

Scoring table:

BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 2 seqs, 1158 residues

Total number of hits satisfying chosen parameters: 4

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Command line parameters:

-MODDEL=frame_nzp.model -DEV=soft -Q=us-09-965-825-1 -DB=US09965825.pep
-SUFFIX=pco -OUT=align1_pep -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits
-START=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200
-THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=plc
-NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000 -NCPU=6 -NO XIPXY
-NEG SCORES=0 -LONGLOG -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
-YGAPOP=10 -YGAEXT=0.5 -DELOP=6 -DELEXT=7

Database : US09965825.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Query Length	DB ID	Description
1	2985	75.6	579	1	US-09-965-825-2
2	2985	75.6	579	1	US-09-965-825-2
3	45	1.1	579	1	US-09-965-825-2
4	45	1.1	579	1	US-09-965-825-2

ALIGNMENTS

RESULT 1

US-09-965-825-2
; Sequence 2, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID U
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5

; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-2

Alignment Scores:

Pred. No.: 0
Score: 2985.00
Percent Similarity: 100.00%
Best Local Similarity: 100.00%
Query Match: 75.61%
DB: 1
Length: 579
Matches: 579
Conservative: 0
Mismatch: 0
Indels: 0
Gaps: 0

us-09-965-825-1 (1-2160) x US-09-965-825-2 (1-579)

QY	327	ATGCACACAGCTACGAGCAATTAATTGACACTTGGAGCTCAAGCTGACAGCA	386
DB	1	MetAlaHisSerTyrAlaGlnGlnLeuLleAspThrLeuGlnAlaGlnGlyValLysArg	20
QY	387	ATTATGATTGGTGGGTGACAGCCTTAATCCGATCGATGCTGTCCGCAATCAGAT	446
DB	21	LleTyrGlyLeuValGlyAspSerLeuAsnProLleValAspAlaValArgGlnSerAsp	40
QY	447	ATTGATGGGTGACGCTTGAAATAGAGAACGGCGCGCTTTGACGCGGTCCGAATCG	506
DB	41	LleGlnTyrValHisValArgAsnGlnGlnAlaAlaPheAlaAlaGlyAlaGlnSer	60
QY	507	TTGATCAGCTGGGAGCTGGAGATGATGCTGCTTGGTGGTGGTGGTGGTGGTGGTGG	566
DB	61	LleLleThrGlyGlnLeuValAlaCysAlaAlaSerCysGlyProGlyAsnThrHisLeu	80
QY	567	ATTGAGGCTCTTATGATTCGATCGCAATGCTGCAAGGCTGTGGCCATCGTACCAT	626
DB	81	LleGlnGlyLeuTyrAspSerHisArgAsnGlyAlaLysValLeuAlaLleAlaSerHis	100
QY	627	ATTCCGAGTCCCAAGTTGGTTCGACGTTCTTCACGAAACGATCCGAGATTTGTT	686
DB	101	LleProSerAlaGlnLleGlySerThrPhePheGlnGlnThrHisProGlnLleLeuPhe	120
QY	687	AAGGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	746
DB	121	LysGlnCysSerGlyTyrCysGlnMetValAsnGlyGlyGlnGlnGlyGlnGlnGln	140
QY	747	CATCAGCGGATTGATTCACCACTGGCGGCTAAAGTGTGCTGCTGCTGCTGCTGCTG	806
DB	141	HisHisAlaLleGlnSerThrMetAlaGlyLysGlyValSerValValAlaLleProGly	160
QY	807	GATATCGCTAAGGAAGACCCAGGTGACGCTATTCATTCATTCATTCATTCATTCAT	866
DB	161	AspIleAlaLysGlnAspAlaGlyAspGlyThrTyrSerAsnSerThrLleSerSerGly	180
QY	867	ACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	926
DB	181	ThrProValValPheProAspProThrGlnAlaAlaAlaValGlnAlaLleAsnAsn	200
QY	927	GCTAAGCTGTGACCTTGTCTGCGGTGCGGCGTGAAGATGCTCGCGCGAGGTGTTG	986
DB	201	AlaLysSerValThrLeuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeu	220
QY	987	GAGTGGCGGGAATTAATTAATCAGGATCGGGCATGCGCTGGGTGGTGAACGATC	1046
DB	221	GlnLeuAlaGlnLysLleLysSerProLleGlyHisAlaLeuGlyGlyLysGlnTyrLle	240
QY	1047	CAGCATGGAATCCCTTTGAGGTCGACATGTCGCTGCTGCTGCTGCTGCTGCTGCTG	1106
DB	241	GlnHisGlnAsnProPheGlnValGlyMetSerGlyLeuLeuGlyTyrGlyAlaCysVal	260

[illegible]

FILE REFERENCE:	21354US0X		
CURRENT APPLICATION NUMBER:	US/09/965, 825		
CURRENT FILING DATE:	2001-10-01		
PRIOR APPLICATION NUMBER:	DE 10048604.5		
PRIOR FILING DATE:	2000-09-30		
PRIOR APPLICATION NUMBER:	DE 10117085.8		
PRIOR FILING DATE:	2001-04-06		
NUMBER OF SEQ ID NOS:	14		
SOFTWARE:	PatentIn version 3.1		
SEQ ID NO 5			
LENGTH:	579		
TYPE:	PRT		
ORGANISM:	Corynebacterium glutamicum		
US-09-965-825-5			
Alignment Scores:			
Pred. No.:	0		
Score:	2985.00		
Percent Similarity:	100.00%		
Best Local Similarity:	100.00%		
Query Match:	75.61%		
DB:	1		
US-09-965-825-1 (1-2160) x US-09-965-825-5 (1-579)			
QY	327	ATGCGACAGACGCTACCGAGAACAAATTAATTGACACTTTGGAGCTCAAGGTGTGAAGCGCA	386
DB	1	MetAlaHisSerTyrAlaGlnGlnLeuIleAspThrLeuGlnAlaGlnGlyValLysArg	20
QY	387	ATTATATGCTTGGTGGGCTGTGACACGCTTAAATCCGATCTGTGATGCTGTCCGCATCAGAT	446
DB	21	IleTyrGlyLeuValGlyAspSerLeuAsnProIleValAspAlaValArgGlnSerAsp	40
QY	447	ATTATAGTGGGTGACGCTTGCAAAATGAGAAACCGCGCGCTTTGTCACACCGGTGTGCAATG	506
DB	41	IleGlnTyrPheHisValArgAsnGlnGlnAlaAlaPheAlaIleGlyAlaGlnSer	60
QY	507	TTGATTCATGGGGAGCTGCAGATATGATGCTCTTGATGTCCTGGAAACACACACTG	566
DB	61	LeuIleThrGlyLeuValAlaValCysAlaAlaSerCysGlyProGlyAsnThrHisLeu	80
QY	567	ATTGAGGCTTTATATGATTTGCATCGAAATGTCGCAAGGTGTGGCCATCGCTACCCAT	626
DB	81	IleGlnIleLeuTyrAspSerHisArgAsnGlyAlaValValLeuAlaIleAlaSerHis	100
QY	627	ATTCGAGTCCCGACAGATGTTGGATGCTTCTTCACAGAAACGATCCGAGATTTGTTT	686
DB	101	IleProSerAlaGlnIleGlySerThrPhePheGlnGlnThrIleProIleLeuPhe	120
QY	687	AAGGAATGCTCTGATTACTGCGAGATGTGGAATGTGTGTGAGACAGGATGCAACGATTTG	746
DB	121	LysLeuLysSerGlyTyrCysGlnMetValAsnGlyGlyGlnGlnIleGlnThrIleLeu	140
QY	747	CATACGCCGATTCAGTTCACCATGCGCGGTTAAAGTGTGTGGTGTAGTATTCCTGGT	806
DB	141	HisHisAlaIleGlnSerThrMetAlaGlyLysGlyValSerValValAlaIleProGly	160
QY	807	GATATCGCTAAGAGACGAGGTGACGGTACCTTATTCGAATTCACATTTCTCTGTGCG	866
DB	161	AspIleAlaLysGlnAspAlaGlyAspGlyThrTyrSerAsnSerThrIleSerSerGly	180
QY	867	ACTCTGTGTGTTCCTCGGATCTTACTGAGGCTGCACGCGCTGTGAGAGCGATTAAACAC	926
DB	181	ThrProValAlaPheProAspProThrGlnAlaAlaAlaLeuValGlnAlaIleAsnAsn	200
QY	927	GCATAGCTGTCACTTTGTTCTCGCGGTGGCGGCGTGAAGAAAGCTTCGCGCCAGAGTGTG	986
DB	201	AlaLysSerValThrLeuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeu	220
QY	987	GAGTTGGCGGAGAAATTAATCACCGATCGGAGCATGCGCTGGTGGTAAAGCAATATC	1046
DB	221	GlnLeuAlaGlnLysIleLeuSerProIleGlyHisAlaLeuGlyGlyLysIleTyrIle	240

```

QY 1047 CAGATGAGAAATCGTTGAGTGGGATGCTGCGCTGCTGTTGTTACGGCGCTGGCTG 1106
    |||||
DB 241 GlnHisGlnsnProPheGluValGlyMetSerGlyLeuLeuGlyTyrGlyAlaCysVal 260
QY 1107 GATGCGTCAATGAGGCGGATCTGCTGATCTATTTGATGGATTCAGGATTCCTTTATTCGAT 1166
    |||||
DB 261 AspAlaSerGlnGlnAlaAspLeuLeuLeuLeuGlyThrAspPheProTyrSerAsp 280
QY 1167 TTCCTTCTTAAAGAACAGCTTCCGAGTGGATATCAACGGTGGGACATTTGGTCAAGT 1226
    |||||
DB 281 PheLeuProLysAspAsnValAlaGlnValAspIleGlnGlyAlaHisIleGlyTyrArg 300
QY 1227 ACCACGGTGAAGTATCCGGTGAACGGGATGTTGCTGGACATTCGAAATATTTGGCT 1286
    |||||
DB 301 ThrThrValLysTyrProValThrGlyAspValAlaAlaThrIleGluAsnIleLeuPro 320
QY 1287 CATGTGAAGGAAAAACAGATCGTCTCTTCTGATCGATGCTCAAGGACAGACGAGCGT 1346
    |||||
DB 321 HisValLysGlnLysThrAspArgSerPheLeuAspArgMetLeuLysAlaHisGlnArg 340
QY 1347 AAGTTAGCTCGGTGTGAGACGTACACACATTAAGCTCGAGAGCATGTGCTTATTCAC 1406
    |||||
DB 341 LysLeuSerSerValValGlnThrTyrThrHisAsnValGlnLysHisValProIleHis 360
QY 1407 CCTGAATACGTTGCTCTATTTTGAACGAGCTGGCGGATTAAGGATGGCGTTTACTG 1466
    |||||
DB 361 ProGlnTyrValAlaSerIleLeuAsnGlnLeuAlaAspLysAspAlaValPheThrVal 380
QY 1467 GATACCGGATGTGCAATGTGTGGATCGGAGGTAGATCGAGATCGGAGGAGACGCGC 1526
    |||||
DB 381 AspThrGlyMetCysAsnValThrHisAlaArgTyrIleGlnsnProGlnLysThrArg 400
QY 1527 GACTTTGTGGGTTCATTCGCGCCACGGACGATGGCTTAATGCTTGGCTCATCGATTCG 1586
    |||||
DB 401 AspPheValGlySerPheArgHisGlyThrMetAlaAsnAlaLeuProHisAlaIleGly 420
QY 1587 GCGCAAGAGTGTATGAGAAACGCGCAGGTGATCGCATGTGGTGGCATGGTGGTTGGCG 1646
    |||||
DB 421 AlaGlnSerValAspArgAsnArgGlnValIleAlaMetCysGlyAspGlyGlyLeuGly 440
QY 1647 ATGCTCTGGGTGAGCTTCTGACCGTTAAAGCTGACCAATTCCTCGGTGAAGGCTGGTG 1706
    |||||
DB 441 MetLeuLeuGlyGlyLeuLeuThrValLysLeuHisGlnLeuProLeuLysAlaVal 460
QY 1707 TTTTAAACAAGTCTTTGGGCGATGTGAAGTTGGAAGTGTGCTGGAGGACGCCAGAA 1766
    |||||
DB 461 PheAsnAsnSerSerLeuGlyMetValLysLeuGlyMetLeuValGlnGlyGlnProGln 480
QY 1767 TTTGGTACTGACCATGAGGAGGAGTATTCGACGAGATTCGGCGGCTCGGGTATCAAA 1826
    |||||
DB 481 PheGlyThrAspHisGlnGlnValAsnPheAlaGlnIleAlaAlaIleGlyIleLys 500
QY 1827 TCGGTAACGATCAACGATCCGAGAAAGTTCCGAGACAGTACGATGAGCATTTGGCATAT 1886
    |||||
DB 501 SerValArgIleThrAspProLysLysValArgGlnGlnLeuAlaLeuAlaIleTyr 520
QY 1887 CCTGACCTGTACTGATGATATCGTACGAGATCTTAATGCGGTGTGATCCACCAACC 1946
    |||||
DB 521 ProGlyProValLeuIleAspIleValThrAspProAsnAlaLeuSerIleProProThr 540
QY 1947 ATCACTGGGAGACAGGTGATGAGGATTCAGACAGGCGGACCGGACCGTCTTTGGTGA 2006
    |||||
DB 541 IleThrTrpGlnGlnValMetGlyPheSerLysAlaAlaThrArgThrValPheGlyGly 560
QY 2007 GAGATGAGGACGATGATGATCTGGCGCTTGAACATTAAGAAATATTCCTACTCCA 2063
    |||||
DB 561 GlyValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThrPro 579

```

RESULT 3

US-09-965-825-2
 ; Sequence 2, Application US/09965825
 ; GENERAL INFORMATION:
 ; APPLICANT: DUSCH, Nicole

```

; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 579
; TYPE: PR
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-2

```

Alignment Scores:

Pred. No.:	Length:	Matches:	Conservative:	Mismatches:	Indels:	Gaps:
0	579	22	19	42	15	4
Score:	45.00					
Percent Similarity:	41.84%					
Best Local Similarity:	22.45%					
Query Match:	1.13%					

US-09-965-825-1 (1-2160) x US-09-965-825-2 (1-579)

```

QY 1796 GAATTCACCTTCTCATGTGCTACCTACCAATTTGGCTGCTCCCTCAGACATTCCTCAA 1737
    |||||
DB 487 GluValAsnPheAlaGlnIleAlaAlaAlaAlaAlaGlyIleLysSerValArgIleThrAs 506
QY 1736 CTTCACCAATGCCCAAGACTGTGTTAAACACACACACACCTTGAGGCGGAGTGGTGACG 1677
    |||||
DB 506 pProLysValArgGlnGlnLeuAlaGlnAlaLeuAlaIleProGlyPro---ValLe 525
QY 1676 CTTAAGGTCAGAGGCTCAACCGACGATGCCCAACACATCCGACACATCGCGAT 1617
    |||||
DB 525 uIleAspIleValThrAspProAsnAlaLeuSerIleProProThr-----I 541
QY 1616 CACCTGGCGG-----TTTGCATCAACACTTTGGCGACCAATCGCATGAGGCAA 1569
    |||||
DB 541 eThrTrpGlnGlnValMetGlyPheSerLysAlaAlaThrArgThrValPheGlyGly 561
QY 1568 CGCATTAAGCCATGTCGCGCGG-----CGGAATGAAACCCACA 1532
    |||||
DB 561 yValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThr 578

```

RESULT 4

```

US-09-965-825-5
; Sequence 5, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 579
; TYPE: PR
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-5

```

Alignment Scores:
Pred. No.: 0
Score: 45.00
Percent Similarity: 41.84%
Best Local Similarity: 22.45%
Query Match: 1.13%
DB: 1
Length: 579
Matches: 22
Conservative: 19
Mismatch: 42
Indels: 15
Gaps: 4

us-09-965-825-1 (1-2160) x US-09-965-825-5 (1-579)

```
QY 1796 GAATTGACTTCTCATGTGTCAGTACCAATTTGGCTGTCCCTCCAGACATCTCCA 1737
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 487 GluValAsnPheAlaGluIleAlaAlaAla-AlaGlyIleLysSerValArgIleThrAs 506

QY 1736 CTTACCATGCCCCAAGAACTGTTTAAACACACACAGCCCTTCAAGCGAAGTGTGCAG 1677
   :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 506 pProLysIleValArgGluIleuAlaGluAlaLeuAlaIleTyrProGlyPro---ValLe 525

QY 1676 CTTAAGGTCGAAGCTCACCAGCAGCATGCCCAACACCATCGCCACACATCGCGAT 1617
   :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 525 uIleAspIleValThrAspProAsnAlaIleuSerIleProProThr-----I 541

QY 1616 CACCTGGCGG-----TTTCGATCAACACTTGGCCACCAATCGCATGAGGCA 1569
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 541 eThrTyrGluGlnValMetGlyPheSerLysAlaAlaIleThrArgThrValIleGlyGlyG 561

QY 1568 CGCATTAAGCCATCGTCCGTGG-----CGGATGAACCCACA 1532
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 561 yValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThr 578
```

Search completed: November 25, 2003, 06:28:46.
Job time : 5 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: November 25, 2003, 06:22:56 ; Search time 0.001 Seconds
(without alignments)
670,482 Million cell updates/sec

Title: us-09-965-825-2
Perfect score: 2985
Sequence: 1 MAHSAEQLIDTLEAQVKR.....GGVGMIDLARSNIRNIPTP 579

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2 seqs, 1158 residues
Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0
Maximum DB seq length: 200000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : US09965825.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES				
Result No.	Score	Match	Length	ID Description
1	2985	100.0	579	1 US-09-965-825-2 Sequence 2, Appl1
2	2985	100.0	579	1 US-09-965-825-5 Sequence 5, Appl1

ALIGNMENTS

RESULT 1
US-09-965-825-2
; Sequence 2, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-2

Query Match 100.0%; Score 2985; DB 1; Length 579;
Best Local Similarity 100.0%; Pred. No. 0;

Matches 579; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MAHSAEQLIDTLEAQVKRIYGLVSDSLNPIDAVQSDIEWHVANEAAFAAGAES	60
DB	1	MAHSAEQLIDTLEAQVKRIYGLVSDSLNPIDAVQSDIEWHVANEAAFAAGAES	60
QY	61	LITGELAVCAACGPGNTHLIQGLYDSHRGAKYLASHIPSAQISTFPOETHPEILF	120
DB	61	LITGELAVCAACGPGNTHLIQGLYDSHRGAKYLASHIPSAQISTFPOETHPEILF	120
QY	121	KECSGYCEMNGEBOGERLIHHAIQSTMAKGVSVVVPGDIAKEDAGDGYSSSTISSG	180
DB	121	KECSGYCEMNGEBOGERLIHHAIQSTMAKGVSVVVPGDIAKEDAGDGYSSSTISSG	180
QY	181	TPVVPDPTBAALVBAINNKAQVTLFCGAVGNARAQVLEAKISPIGHALGKQYI	240
DB	181	TPVVPDPTBAALVBAINNKAQVTLFCGAVGNARAQVLEAKISPIGHALGKQYI	240
QY	241	QHNPPEVGMISGLIGACVDAENADLLILGTDPPYSDFLPKDNVAQVDINGAHIGRR	300
DB	241	QHNPPEVGMISGLIGACVDAENADLLILGTDPPYSDFLPKDNVAQVDINGAHIGRR	300
QY	301	TTVKYPTGDAATIENTILPHVKEKTDPSFLDMLKAHERKLSVETTYTHNVEKHVPIH	360
DB	301	TTVKYPTGDAATIENTILPHVKEKTDPSFLDMLKAHERKLSVETTYTHNVEKHVPIH	360
QY	361	PEYVASILNELADKDAVFTVDTGMCNVNHAARYIENEGTRDFVGSFRHGTMANALPHAIG	420
DB	361	PEYVASILNELADKDAVFTVDTGMCNVNHAARYIENEGTRDFVGSFRHGTMANALPHAIG	420
QY	421	AGSVDRNRQVIAMCGGGLMLIGELLTYKHLPLKAVFPNNSSLGCMKLEMLVEGQPE	480
DB	421	AGSVDRNRQVIAMCGGGLMLIGELLTYKHLPLKAVFPNNSSLGCMKLEMLVEGQPE	480
QY	481	FGTDHEENVPAETAAAGIKSVRIITDPKKVREQLAEALAPGVLLIDIVDPNALSTPPT	540
DB	481	FGTDHEENVPAETAAAGIKSVRIITDPKKVREQLAEALAPGVLLIDIVDPNALSTPPT	540
QY	541	ITWEQVMGFSKATRTVFGGVGAMIDLARSNIRNIPTP	579
DB	541	ITWEQVMGFSKATRTVFGGVGAMIDLARSNIRNIPTP	579

RESULT 2
US-09-965-825-5
; Sequence 5, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-5

Query Match 100.0%; Score 2985; DB 1; Length 579;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 579; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MAHSAEQLIDTLEAQVKRIYGLVSDSLNPIDAVQSDIEWHVANEAAFAAGAES 60
|||||

Db	1	MAHSYAEQLIDTLEAQGVKRIYGLVGSINPVDVAFROSQDIEMVHVRNEEAAAFAGAES	60
QY	61	LITGELAVCAASCGPNTHLIQGLYDSHRNGAKVLAIASHIPSAQIGSTFFQETHPEILF	120
Db	61	LITGELAVCAASCGPNTHLIQGLYDSHRNGAKVLAIASHIPSAQIGSTFFQETHPEILF	120
QY	121	KECSGYCEMNVNGSQERILHHAIQSTMAGKGSVVVI PGDI AKEDAGDGTYSNSTISSG	180
Db	121	KECSGYCEMNVNGSQERILHHAIQSTMAGKGSVVVI PGDI AKEDAGDGTYSNSTISSG	180
QY	181	TPVAFPPPTFAAALVEAINNKAQSVTLFCGAGVKARAOVLELAEKISPIGHALGKQYI	240
Db	181	TPVAFPPPTFAAALVEAINNKAQSVTLFCGAGVKARAOVLELAEKISPIGHALGKQYI	240
QY	241	QHBNPFVGMSSGLGYGACVDASNEADLLILGTFPYSDFLPKDNVAQVDINGAHIGRR	300
Db	241	QHBNPFVGMSSGLGYGACVDASNEADLLILGTFPYSDFLPKDNVAQVDINGAHIGRR	300
QY	301	TTYKYPTVGVAATIENTILPHVKEKTRSPFLDRMLKAHERKLSVVEITYTHNVEKHVPIH	360
Db	301	TTYKYPTVGVAATIENTILPHVKEKTRSPFLDRMLKAHERKLSVVEITYTHNVEKHVPIH	360
QY	361	PEVYASILNELADKDAVETVDTGMCNVWHARYIENPEGTRDPVGSFRHGTMANALPHAIG	420
Db	361	PEVYASILNELADKDAVETVDTGMCNVWHARYIENPEGTRDPVGSFRHGTMANALPHAIG	420
QY	421	AQSVDRNRQVIAMCGDGLGMLIGELLTVKLHQLPLKAVVPNNSSLGMVKLEMLVEGOPE	480
Db	421	AQSVDRNRQVIAMCGDGLGMLIGELLTVKLHQLPLKAVVPNNSSLGMVKLEMLVEGOPE	480
QY	481	FGTDHEEVNFAELTAAAGISVRLTDPKRVREQLAEALAYPGPVLIDIVTDPNALSTIPT	540
Db	481	FGTDHEEVNFAELTAAAGISVRLTDPKRVREQLAEALAYPGPVLIDIVTDPNALSTIPT	540
QY	541	ITWEQVMGFSKATRTVFGGSGVGMIDLARSNIRNIPPT	579
Db	541	ITWEQVMGFSKATRTVFGGSGVGMIDLARSNIRNIPPT	579

Search completed: November 25, 2003, 06:22:56
Job time : 0.001 secs